

1 **IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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3 Applicant: IB R. ODDERSON

4 Title: BODY SUPPORTING, SERIAL INFLATING SEAT

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GROUP 3600

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11 Box: Patent Applications
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13 **INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

14 In compliance with Applicant's and his attorney's duty of disclosure under 37 CFR
15 1.56, the Applicant does hereby submit the following Information Disclosure Statement,
16 Form PTO - 1449, and copies of the references listed thereon.

17 A patent search was manually conducted for the invention described in the above-
18 referenced patent application. In the course of the search, no patents were found for an
19 apparatus that has the same structural features or that operates in the same manner such as the
20 invention listed above. The following ten (10) patents, however, were noted as being of
21 interest and are hereby brought to the Examiner's attention as references AA - AJ. The
22 significance of each listed reference is as follows:

23 AA. U.S. Patent No. 6,098,000 (Long et al.) discloses a system of inflatable air

1 cells installed in a seat that are strategic to the user. The air cells are sequentially and
2 independently connected to a pump. A manifold controls the flow of fluid in the air cell
3 distribution system by means of a system of valves and senses the pressure in each cell by
4 means of a transducer. A microcomputer is programmed with data representing a desired
5 comfort level for each of the air cells. By sequentially activating individual manifold valves,
6 a pressure signal from the transducer can be generated for each cell.

7 AB. U.S. Patent No. 6,092,249 (Kamen et al.) discloses a cushion system for
8 supporting a seated person at risk of developing pressure sores. An array foam members is
9 biased to exhibit a substantially constant force per unit area when supporting the body. The
10 bias may be passive or may be applied actively by providing a gas to the foam and controlling
11 the pressure of the gas in response to the pressure conditions of the body.

12 AC. U.S. Patent No. 6,088,643 (Long et al.) This is a continuation of U.S. Patent
13 No. 6,098,000 described above and further discloses a pneumatically controlled seat for a
14 vehicle having a multiple air cell inflation system which can adjust the pressure in each of the
15 cells simultaneously or sequentially.

16 AD. U.S. Patent No. 6,088,642 (Finkelstein et al.) similarly discloses a
17 pneumatically controlled seat for a vehicle having a multiple air cell inflation system which
18 can adjust the pressure in each of the cells simultaneously or sequentially while providing
19 many combinations of modes of operation from fully automatic to manual.

20 AE. U.S. Patent No. 5,881,4107 (Chu Pt) discloses a seat cushion inflation system,
21 for periodically shifting the body weight of a person comprising four separately inflatable
22 chambers. An inflation cycle is a sequence of inflations and deflations whereby the chambers
23 are inflated alone and in combination with other changers, and then are deflated with a time

1 delay between every step.

2 AF. U.S. Patent No. 5,687,099 (Gross et al.) discloses a device for supporting a
3 body portion with a plurality of individually adjustable, pressure-sensing inflatable members.
4 The device has a control arrangement for adjusting the pressure in the members according to
5 a predetermined protocol.

6 AG. U.S. Patent No. 5,678,891 (O'Neill et al.) discloses a seat support which
7 provides alternating support regions by dynamic inflation of sets of cells to widely vary the
8 pressure throughout the seat cushion surface area.

9 AH. U.S. Patent No. 5,379,471 (Holdredge) discloses a pneumatic cushion for a
10 wheel chair intended to prevent isochemic injury to the weight bearing portions of the
11 buttocks while in a sitting position. This object is accomplished by providing an air cushion
12 having a number of independent air cells arranged in a matrix. Reduced air flow and therefore
13 reduced pressure is provided within the cushion periodically so each air cell on the surface
14 will have reduced pressure and reduced flow for 12 seconds every minute, for example.

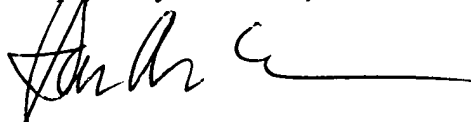
15 AI. U.S. Patent No. 5,029,939 (Smith et al.) discloses a pneumatic vehicle seat
16 which alternately supports the occupant upon different portions of the occupant's body
17 comprising a tri-leveled base having non-commingled first, second, and third fluid passages
18 for the respective levels. A motor and pneumatic pump is provided to alternate the pressure
19 between the first and second cushion cells in an alternating fashion in a timed cycle between
20 15 seconds and two minutes in length.

21 AJ. U.S. Patent No. 4,840,425 (Noble) discloses an inflatable cushioned seating
22 assembly which alternates the areas of supporting contact and includes a plurality of first and
23 second alternating sets of elongated inflatable compartments that extend across both the seat

1 and backrest, each set substantially independently pressurized. A control mechanism
2 alternately causes inflation and at least partial deflation of each set of compartments, with
3 inflation being caused to occur from the rear of the seat portion of the seat forwardly and
4 from the bottom of the back portion upwardly.

5 The Applicant and his attorney submit that the above-cited references taken alone or
6 in combination neither anticipate nor render obvious the present invention. None of the
7 references disclose or claim a body supporting, sequentially or serial inflating seat comprising
8 at least three transversely aligned inflatable air bladders connected to a pump and timer. The
9 air bladders are inflated sequentially, from front to back, over a period of approximately
10 eleven seconds and simultaneously deflated to slowly pump blood upward in the legs thereby
11 reducing blood pooling. Connected to the pump is a valve that keeps the air bladders inflated
12 for a predetermined amount of time. The cycle is then repeated continuously. Located
13 adjacent to the back air bladder is a transversely aligned, non-inflating seat section which
14 continuously supports the user's ischial tuberosities to prevent slippage over the seat. An
15 alternate embodiment offers a split seat option with six inflatable bladders. The listed
16 references relate only to the general field of the disclosure and do not constitute an admission
17 that the references are relevant or material to the claims; they are cited only as constituting
18 the closest art of which the Applicant and his attorney are aware.

19
20 Respectfully submitted,

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22 DEAN A. CRAINE

23 Reg. No. 33,591

CERTIFICATE OF MAILING BY FIRST CLASS MAIL (37 CFR 1.8)Applicant(s): **IB R. ODDERSON**

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APR 30 2002

Group Art Unit

3628Invention: **BODY SUPPORTING, SERIAL INFLATING SEAT**COPY OF PAPERS
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